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## A HEAT SINK WITH A CUTOUT

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### ABSTRACT

5           A heat sink extends beyond the outer boundaries of a component cooled by the  
heat sink. In one embodiment, the heat sink may have a cutout shaped and located so that  
a protruding portion of a clip can extend through the cutout from one surface of the heat  
sink and mechanically fasten the component to another surface of the heat sink. There  
may be more than one cutout. Heat transfer values can be optimized by adjusting the  
10       number and the location of the cutouts and the size of the heat sink relative to the  
component and the fastening mechanism (e.g., a clip). In another embodiment, the clip  
that extends through the cutout holds the heat sink against a motherboard, pressing  
against a component located between the heat sink and the motherboard.